IN THE ABSTRACT:

The present invention relates to a ring binder mechanism for binding the sheets of loose leaves. The mechanism ~~comprising: a elongated plate that extends longitudinally; hinge plates supported by said elongated plate for pivotal rotating relative to the elongated plate; rings for clasp said sheets of loose leaves, each of the rings comprising a pair of half ring elements, and the pair of half ring elements being attached on said hinge plates and being movable between a closed position and an opened position via said hinge plates, characterized in that nesting portions of free ends of said pair of half ring elements form a nesting configuration with a concave portion and a convex portion that are symmetrical about an axis line of the cylindrical rods of the ring elements, so that when the pair of half ring elements are in the closed condition, the nesting portions of said pair of half ring elements are aligned to each other and nested together tightly. The ring binder mechanism according to the present invention can overcome the above mentioned disadvantages of the prior art by enabling the closed nesting portions to close tightly and align to each other exactly and by eliminating the vertical and transverse misalignment.~~ comprises an elongated spring plate that extends longitudinally and, in profile, has a

shallow U-shaped configuration and opposite edges which extend substantially toward each other; two parallel elongate hinge plates supported by said spring plate for pivotal toggle motion relative to the spring plate about a central hinge line which are mounted in parallel and retained by the opposite edges of the spring plate; and a plurality of rings for clasping said sheets of loose leaves. Each of the rings comprises a pair of half ring elements of circular cross-section which are mounted on said hinge plates, with one half ring element of each pair being attached to one of the hinge plates and the other half ring element of the pair attached to the other hinge plate, with the two half ring elements of each pair in substantial alignment.

ADDITIONAL FEE:

Please charge any insufficiency of fee, or credit any excess, to Deposit Account No. 50-0427.

R E M A R K S

The Office Action issued January 12, 2006 has been received and its contents have been carefully considered.

The applicant wishes to thank the Examiner in charge of this application, Mr. Eric Gates, and his Supervising Primary Examiner, Mark Henderson, for the courtesy and cooperation they extended applicant's undersigned counsel during the interview kindly granted on March 22, 2006.

Prior to the interview, applicant's counsel submitted proposed amendments to claims 1-4. The proposed amendment to claim 1 formed the basis of discussion at the interview.

During the interview, applicant's counsel presented a sample of the loose-leaf binder mechanism which incorporates the present invention. The proposed amendments to claim 1 were directed to various features of this sample.

At the interview, Mr. Henderson noted that the feature wherein the pairs of half ring elements are "mounted on said hinge plates on the side thereof opposite said spring plate" was not shown in the figures. Applicant's counsel

acknowledged this and said he would review the specification to see if it provided support for this feature.

Claims 1-4 and 11 have now been amended and claims 7-9 and 14-19 have been canceled.

The amendments to claim 1 are identical to those discussed at the interview except that the feature referred to above, wherein the ring elements are "mounted on said hinge plates on the side thereof opposite said spring plate", has been removed.

Turing now to the Office Action, applicant submits copies of Figs. 20 and 21 with the legend "Prior Art" affixed thereto. These drawings are submitted as replacement sheets for this application.

The Abstract has been amended to correspond with the amended recitation of the invention now recited in claim 1. The length of the abstract has also been reduced to 150 words.

The specification has been carefully reviewed and extensively amended to place it in idiomatic English and to remove all spelling errors that were found.

The dependent claims have been extensively amended to remove the informalities kindly noted by the Examiner and to render them consistent with their parent claim 1, as amended.

For the convenience of the Examiner, applicant submits herewith a Substitute Specification incorporating all of the amendments made to the application. As the Examiner will verify, no new matter has been entered.

All of the claims of this application, as previously presented, have been rejected over the patent to Kissel in view of the patents to Nelson, Stevens, Dorfman et al. and the patent publication of To (the present inventor) et al. Claim 1, as now amended, is believed to distinguish patentably over all of these references for the reasons presented at the interview.

In particular, claim 1 now recites a ring binder mechanism for loose-leaf sheets having the following elements and features:

(1) a spring plate having a shallow U-shaped configuration with opposite edges that extend substantially toward each other;

(2) two parallel hinge plates supported by the spring plate for pivotal toggle motion about a central hinge line;

(3) the hinge plates are retained by the opposite edges of the spring plate;

(4) a plurality of rings, each comprising a pair of half ring elements of circular cross-section;

(5) the ring elements are mounted on the hinge plates, with one half ring element attached to one of the hinge plates and the other half ring element attached to the other, with the ring elements of each pair in substantial alignment;

(6) the ring elements are moveable with the hinge plates to toggle between an open position and a closed position;

(7) the ring elements form a substantially annular shape when in the closed position;

(8) the half ring of each pair of ring elements nest together when in the closed position;

(9) the free end of one half ring element of each pair has a centrally concave nesting portion;

(10) the free end of the other half ring element of the pair has a centrally convex nesting portion;

(11) the concave portion and the convex portion are symmetrical about an axis line of the respective ring elements of the pair;

(12) the free ends of the half ring elements form a surface engagement so that the convex portion and the concave portion are nested together tightly.

As the Examiners understand, ring binder mechanisms are an extremely crowded art, such that even small improvements

give rise to the level of "unobviousness" required by the Patent Law for patentability. This art is also extremely old as evidenced by the age of one of the cited references (Nelson).

A review of the cited references reveals that the combination of features now recited in applicant's claim 1 is neither taught nor suggested.

The patent to Kissel discloses the use of rings which are oval in cross-section and form a rectangular configuration when in the closed position.

Nelson fails to teach the use of a U-shaped spring which supports parallel hinge plates.

Similarly, Stevens has neither the U-shaped spring nor parallel hinge plates. The binder rings do not form an annular configuration when closed.

Dorfman et al. disclose a single, integral plastic element which forms the "spring" as well as the hinge plates. The various parts are interconnected with hinges 40, 42 and 44.

To et al. disclose a completely different type of binder mechanism than that of the present invention, with no spring element or hinge plates.

Accordingly, it is believed that claim 1, as well as the remaining dependent claims of this application are

patentable over these references. It is therefore respectfully submitted that the present application is now in condition for allowance.

An early and favorable action on the merits is earnestly solicited.

Respectfully submitted,

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I hereby certify that this correspondence is being deposited with the United States Postal Services as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on

APRIL 10, 2006
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By _____

Date APRIL 10, 2006